DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-001028 Address: 333 Burma Road **Date Inspected:** 17-Dec-2007

City: Oakland, CA 94607

OSM Arrival Time: 630 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: N/A **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A N/A **Electrode to specification:** No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** 114m Mock-ups, 89m Skin's E and D

Summary of Items Observed:

Bay 1 operations: The Caltrans Quality Assurance (QA) Inspector, John P. Tracy, had the following list of activities to report:

No activity noted for this day.

Bay 2 operations: The Caltrans Quality Assurance (QA) Inspector, John P. Tracy, had the following list of activities to report:

114m upper and lower section were again rotated. ZPMC performed dimensional analysis following the rotation of the assembly. The 114m upper section - Sub Arc Weld (SAW) welders are establishing welder parameters. The fit-up awaiting welding operations was not cleaned. ZPMC and Bureau Veritas inspectors agreed and the problem was rectified. The weld joint and surrounding area was ground to bright metal. Preheating was reestablished with ceramic heater blanket.

89m- Skin E- MA38 to SA215 welds 1,2,3 and 4 were still in process for weld joint #MUB-MA21 B/J.

89m- Skin A- MA21 to SA214 for joint # MUB-MA21-C/J each area on the plate faces has been cleaned using a mechanical grinder in order to removed the oxidation in preparation for thermal operations. No fit-up has been observed.

114m lower- Welder is having difficulty making the start of his weld onto the run-off tab. Due to the temporary diaphragm being recessed 50mm into the interior of the mock-up, the welder is sticking his FCAW welding tip out through an access hole at the weld joint. He has extensive stick-out and is out of position from what appeared to be

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100-20mm out at the start of this Complete Joint Penetration (CJP) weld.

Electrode Storage Room- The weld issue logs are still written in Chinese characters after several attempts to rectify them. Temperatures appear to be within parameters for electrode and flux storage only. No drying temperatures have been observed.









Summary of Conversations:

Discussions between Caltrans Representatives, Mr. Joshua Ishibashi, Mr. Alfredo Acuna and the representative, clarified the previously reported incident regarding a noted deflection on 89m MA38 skin plate. This is a correct design intentionally fabricated to accommodate the unique conditions within the Tower Structure. The incident is not a relevant topic and should be disregarded.

Additionally, a conversation was had between the Caltrans representative and Mr. Kevin Dye of American Bridge Fabricators (ABF) regarding the noted welding conditions, as stated above, within the 114m tower mock-up sections. His disposition on the issue was he believed that it needed "looking into". Further action is pending.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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Inspected By: Tracy, John Quality Assurance Inspector **Reviewed By:** Carreon, Albert QA Reviewer